

OIPE

DATE: 08/01/2001  
 TIME: 16:17:38

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/911,777

Input Set : A:\A070us.txt  
 Output Set: N:\CRF3\08012001\I911777.raw

4 <110> APPLICANT: BIOGEN, INC.  
 5 APOTECH S.A.  
 6 BROWNING, Jeffrey  
 7 AMBROSE, Christine  
 8 MACKAY, Fabienne  
 9 TSCHOPP, Jurg  
 10 SCHNEIDER, Pascal  
 12 <120> TITLE OF INVENTION: BAFF, Inhibitors Thereof and Their Use  
 13 in the Modulation of B-Cell Response  
 16 <130> FILE REFERENCE: A070 US  
 C--> 18 <140> CURRENT APPLICATION NUMBER: US/09/911,777  
 C--> 18 <141> CURRENT FILING DATE: 2001-07-24  
 18 <150> PRIOR APPLICATION NUMBER: 60/117,169  
 19 <151> PRIOR FILING DATE: 1999-01-25  
 21 <150> PRIOR APPLICATION NUMBER: 60/143,228  
 22 <151> PRIOR FILING DATE: 1999-07-09  
 24 <150> PRIOR APPLICATION NUMBER: PCT/US00/01788  
 25 <151> PRIOR FILING DATE: 2000-01-25  
 27 <160> NUMBER OF SEQ ID NOS: 22  
 29 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 31 <210> SEQ ID NO: 1  
 32 <211> LENGTH: 218  
 33 <212> TYPE: PRT  
 34 <213> ORGANISM: Homo Sapien  
 36 <400> SEQUENCE: 1  
 37 Met Asp Asp Ser Thr Glu Arg Glu Gln Ser Arg Leu Thr Ser Cys Leu  
 38 1 5 10 15  
 39 Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile Leu Pro  
 40 20 25 30  
 41 Arg Lys Glu Ser Pro Ser Val Leu Leu Ser Cys Cys Leu Thr Val Val  
 42 35 40 45  
 43 Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg  
 44 50 55 60  
 45 Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Lys  
 46 65 70 75 80  
 47 Ile Phe Glu Pro Pro Ala Pro Gly Glu Gly Asn Ser Ser Gln Asn Ser  
 48 85 90 95  
 49 Arg Asn Lys Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln Asp  
 50 100 105 110  
 51 Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys Gly  
 52 115 120 125  
 53 Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser Ala  
 54 130 135 140  
 55 Leu Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met Gly His  
 56 145 150 155 160  
 57 Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu Ser Leu  
 58 165 170 175

ENTERED

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59 Val Thr Leu Phe Arg Cys Ile Gln Asn Leu Glu Glu Gly Asp Glu Leu  
60 180 185 190  
61 Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Leu Asp Gly Asp  
62 195 200 205  
63 Val Thr Phe Phe Gly Ala Leu Lys Leu Leu  
64 210 215  
66 <210> SEQ ID NO: 2  
67 <211> LENGTH: 232  
68 <212> TYPE: PRT  
69 <213> ORGANISM: Murine  
71 <400> SEQUENCE: 2  
72 Met Asp Glu Ser Ala Lys Thr Leu Pro Pro Pro Cys Leu Cys Phe Cys  
73 1 5 10 15  
74 Ser Glu Lys Gly Glu Asp Met Lys Val Gly Tyr Asp Pro Ile Thr Pro  
75 20 25 30  
76 Gln Lys Glu Glu Gly Ala Val Leu Ser Ser Ser Phe Thr Ala Met  
77 35 40 45  
78 Ser Leu Tyr Gln Leu Ala Ala Leu Gln Ala Asp Leu Met Asn Leu Arg  
79 50 55 60  
80 Met Glu Leu Gln Ser Tyr Arg Gly Ser Ala Thr Pro Ala Ala Ala Lys  
81 65 70 75 80  
82 Leu Leu Thr Pro Ala Ala Pro Arg Pro His Asn Ser Ser Arg Gly His  
83 85 90 95  
84 Arg Asn Arg Arg Ala Phe Pro Gly Pro Glu Glu Thr Glu Gln Asp Val  
85 100 105 110  
86 Asp Leu Ser Ala Pro Pro Ala Leu Arg Asn Ile Ile Gln Asp Cys Leu  
87 115 120 125  
88 Gln Leu Ile Ala Asp Ser Asp Thr Pro Thr Ile Arg Lys Gly Thr Tyr  
89 130 135 140  
90 Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Asn Ala Leu Tyr  
91 145 150 155 160  
92 Ser Gln Val Leu Tyr Thr Asp Pro Ile Phe Ala Met Gly His Val Ile  
93 165 170 175  
94 Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu Ser Leu Val Thr  
95 180 185 190  
96 Leu Phe Arg Cys Ile Gln Asn Leu Glu Glu Gly Asp Glu Ile Gln Leu  
97 195 200 205  
98 Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Arg Asn Gly Asp Asp Thr  
99 210 215 220  
100 Phe Phe Gly Ala Leu Lys Leu Leu  
101 225 230  
103 <210> SEQ ID NO: 3  
104 <211> LENGTH: 102  
105 <212> TYPE: PRT  
106 <213> ORGANISM: HOMO Sapien  
108 <400> SEQUENCE: 3  
109 Val Thr Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr  
110 1 5 10 15  
111 Ile Gln Lys Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys

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112 20 25 30  
113 Arg Gly Ser Ala Leu Glu Glu Lys Tyr Gly Gln Val Leu Tyr Thr Asp  
114 35 40 45  
115 Lys Thr Tyr Ala Met Gly His Leu Ile Gln Arg Lys Lys Val His Val  
116 50 55 60  
117 Phe Gly Asp Glu Leu Ser Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala  
118 65 70 75 80  
119 Lys Leu Glu Glu Gly Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn  
120 85 90 95  
121 Ala Gln Ile Ser Leu Asp  
122 100  
124 <210> SEQ ID NO: 4  
125 <211> LENGTH: 96  
126 <212> TYPE: PRT  
127 <213> ORGANISM: Homo Sapien  
129 <400> SEQUENCE: 4  
130 Lys Gln His Ser Val Leu His Leu Val Pro Ile Asn Ala Thr Ser Lys  
131 1 5 10 15  
132 Asp Asp Ser Asp Val Thr Glu Val Met Trp Gln Pro Ala Leu Arg Arg  
133 20 25 30  
134 Gly Arg Gly Leu Gln Ala Gln Tyr Ser Gln Val Leu Phe Gln Asp Val  
135 35 40 45  
136 Thr Phe Thr Met Gly Gln Val Val Ser Arg Glu Gly Gln Gly Arg Ala  
137 50 55 60  
138 Tyr Asn Ser Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp  
139 65 70 75 80  
140 Ile Leu Ser Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn Leu Ser  
141 85 90 95  
143 <210> SEQ ID NO: 5  
144 <211> LENGTH: 104  
145 <212> TYPE: PRT  
146 <213> ORGANISM: Homo Sapien  
148 <400> SEQUENCE: 5  
149 Ser Asp Lys Pro Val Ala His Val Val Ala Asn Pro Gln Ala Glu Gly  
150 1 5 10 15  
151 Gln Leu Gln Trp Leu Asn Arg Arg Ala Asn Ala Leu Leu Ala Asn Gly  
152 20 25 30  
153 Val Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly Cys Pro Ser Thr His  
154 35 40 45  
155 Val Leu Leu Thr His Thr Ile Ser Arg Ile Ala Val Ser Tyr Gln Thr  
156 50 55 60  
157 Glu Gly Ala Glu Ala Lys Pro Trp Tyr Glu Pro Ile Tyr Leu Gly Gly  
158 65 70 75 80  
159 Val Phe Gln Leu Glu Lys Gly Asp Arg Leu Ser Ala Glu Ile Asn Arg  
160 85 90 95  
161 Pro Asp Tyr Leu Asp Phe Ala Glu  
162 100  
164 <210> SEQ ID NO: 6  
165 <211> LENGTH: 97

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Input Set : A:\A070us.txt  
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166 <212> TYPE: PRT  
167 <213> ORGANISM: Homo Sapien  
169 <400> SEQUENCE: 6  
170 Glu Leu Arg Lys Val Ala His Leu Thr Gly Lys Ser Asn Ser Arg Ser  
171 1 5 10 15  
172 Met Pro Leu Glu Trp Glu Asp Thr Tyr Gly Ile Val Leu Leu Ser Gly  
173 20 25 30  
174 Val Lys Tyr Ser Lys Val Tyr Phe Arg Gly Gln Ser Cys Asn Asn Leu  
175 35 40 45  
176 Pro Leu Ser His Lys Val Tyr Met Arg Asn Ser Lys Tyr Pro Gln Met  
177 50 55 60  
178 Trp Ala Arg Ser Ser Tyr Leu Gly Ala Val Phe Asn Leu Thr Ser Ala  
179 65 70 75 80  
180 Asp His Leu Tyr Val Asn Val Ser Glu Leu Ser Leu Val Asn Phe Glu  
181 85 90 95  
182 Glu  
185 <210> SEQ ID NO: 7  
186 <211> LENGTH: 102  
187 <212> TYPE: PRT  
188 <213> ORGANISM: Homo Sapien  
190 <400> SEQUENCE: 7  
191 Thr Leu Lys Pro Ala Ala His Leu Ile Gly Asp Pro Ser Lys Gln Asn  
192 1 5 10 15  
193 Ser Leu Leu Trp Arg Ala Asn Thr Asp Arg Ala Phe Leu Gln Asp Gly  
194 20 25 30  
195 Phe Tyr Ser Gln Val Val Phe Ser Gly Lys Ala Tyr Ser Pro Lys Ala  
196 35 40 45  
197 Thr Ser Ser Pro Leu Tyr Leu Ala His Glu Val Gln Leu Phe Ser Ser  
198 50 55 60  
199 Gln Tyr Pro Phe Pro Trp Leu His Ser Met Tyr His Gly Ala Ala Phe  
200 65 70 75 80  
201 Gln Leu Thr Gln Gly Asp Gln Leu Ser Thr His Thr Asp Gly Ile Pro  
202 85 90 95  
203 His Leu Val Leu Ser Phe  
204 100  
206 <210> SEQ ID NO: 8  
207 <211> LENGTH: 109  
208 <212> TYPE: PRT  
209 <213> ORGANISM: Homo Sapien  
211 <400> SEQUENCE: 8  
212 Glu Ala Gln Pro Phe Ala His Leu Thr Ile Asn Ala Thr Asp Ile Pro  
213 1 5 10 15  
214 Ser Gly Ser His Lys Val Ser Leu Ser Ser Trp Tyr His Asp Arg Gly  
215 20 25 30  
216 Trp Gly Lys Ile Ser Asn Met Tyr Ala Asn Ile Cys Phe Arg His His  
217 35 40 45  
218 Glu Thr Ser Gly Asp Leu Ala Thr Glu Tyr Leu Gln Leu Met Val Tyr  
219 50 55 60  
220 Val Thr Lys Thr Ser Ile Lys Ile Pro Ser Glu Phe His Phe Tyr Ser

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221 65 70 75 80  
222 Ile Asn Val Gly Gly Phe Phe Lys Leu Arg Ser Gly Glu Glu Ile Ser  
223 85 90 95  
224 Ile Glu Val Ser Asn Pro Ser Leu Leu Asp Pro Asp Gln  
225 100 105  
227 <210> SEQ ID NO: 9  
228 <211> LENGTH: 26  
229 <212> TYPE: DNA  
230 <213> ORGANISM: Homo Sapien  
232 <400> SEQUENCE: 9  
233 actgtttctt ctggaccctg aacggc 26  
235 <210> SEQ ID NO: 10  
236 <211> LENGTH: 30  
237 <212> TYPE: DNA  
238 <213> ORGANISM: Homo Sapien  
240 <400> SEQUENCE: 10  
241 gacaagcttg ccaccatgga tgactccaca 30  
243 <210> SEQ ID NO: 11  
244 <211> LENGTH: 23  
245 <212> TYPE: DNA  
246 <213> ORGANISM: Homo Sapien  
248 <400> SEQUENCE: 11  
249 actagtcaca gcagttcaa tgc 23  
251 <210> SEQ ID NO: 12  
252 <211> LENGTH: 22  
253 <212> TYPE: DNA  
254 <213> ORGANISM: Homo Sapien  
256 <400> SEQUENCE: 12  
257 ctgcagggtc cagaagaaac ag 22  
259 <210> SEQ ID NO: 13  
260 <211> LENGTH: 24  
261 <212> TYPE: DNA  
262 <213> ORGANISM: Homo Sapien  
264 <400> SEQUENCE: 13  
265 ggagaaggca actccagtca gaac 24  
267 <210> SEQ ID NO: 14  
268 <211> LENGTH: 24  
269 <212> TYPE: DNA  
270 <213> ORGANISM: Homo Sapien  
272 <400> SEQUENCE: 14  
273 caatttcatcc ccaaagacat ggac 24  
275 <210> SEQ ID NO: 15  
276 <211> LENGTH: 22  
277 <212> TYPE: DNA  
278 <213> ORGANISM: Homo Sapien  
280 <400> SEQUENCE: 15  
281 tcggaacaca acgaaacaag tc 22  
283 <210> SEQ ID NO: 16  
284 <211> LENGTH: 26

VERIFICATION SUMMARY  
PATENT APPLICATION: US/09/911,777

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Input Set : A:\A070us.txt  
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L:18 M:270 C: Current Application Number differs, Replaced Current Application No  
L:18 M:271 C: Current Filing Date differs, Replaced Current Filing Date